

1 I Claim:

2 1. A process for recharging batteries which comprises:

3 (a) coupling a dynamo to the intermediate hub of a
4 bicycle, which bicycle also has a front axle to which is
5 mounted a front wheel, a front derailleur, and an
6 interconnected crank and set of pedals attached in conventional
7 fashion, said front derailleur being operatively connected to
8 said intermediate hub;

9 said dynamo having a fixed wheel containing a series of
10 spaced periphery mounted magnets, and a rotatable wheel also
11 having a similar series of periphery mounted magnets in close
12 proximity, said coupling being to the rotatable wheel,

13 whereby pedaling of the bicycle causes the intermediate
14 hub to rotate, and simultaneously said dynamo's rotatable wheel
15 to rotate and to produce a current,

16 (b) conducting said current to a battery charger
17 having one or more batteries therein,

18 (c) charging the one or more batteries in said
19 charger.

20 2. The process of claim 1 further including preventing
21 a back flow of current from the batteries to the dynamo.

22 3. The process of claim 1 also including the step of
23 preventing the overcharge of said batteries.

24 4. A bicycle powered battery charging system for use
25 during times when electrical power is not being delivered which
26 system comprises:

27 (a) a bicycle comprising a seat for a rider, a front
28 derailleur interconnected to a crank and pedal set, said
29 bicycle also having a rear derailleur mounted on an
30 intermediate hub and a front wheel,

31 (b) a dynamo comprising a housing having a fixed
32 wheel, said fixed wheel having a series of peripherally mounted
33 spaced magnets; and said dynamo also having a rotatable wheel
34 having a similar set of periphery mounted spaced magnets, the
35 two wheels being in close proximity and the respective magnets
36 facing each other, said rotatable wheel being mounted on a rear
37 hub,

38 (c) means for operatively interconnecting said rear

hub to said intermediate hub,

(d) a battery charge electrically connected to said dynamo.

5. The battery charging system of claim 4 wherein the means for operatively interconnecting said rear hub to said intermediate hub is a chain.

6. The battery charging system of claim 4 wherein the means for operatively interconnecting said rear hub to said intermediate hub is a continuous belt.

7. The battery charging system of claim 4 further including a coaster clutch incorporated into the intermediate hub.

8. The battery charging system of claim 7, further including an overcharge protection circuit.

9. The battery charging system of claim 7 further including a one-way gate switch to prevent power from returning from the batteries to the generator.

10. A bicycle powered battery charging system for use during times when electrical power is not being delivered which system comprises:

(a) a bicycle comprising a seat for a rider, a front derailleur interconnected to a crank and pedal set, said bicycle also having a rear derailleur mounted on an intermediate hub and a front wheel,

(b) a dynamo comprising a housing having a fixed wheel, said fixed wheel having a series of peripherally mounted spaced magnets; and said dynamo also having a rotatable wheel having a similar set of periphery mounted spaced magnets, the two wheels being in close proximity and the respective magnets facing each other, said rotatable wheel being mounted on a rear hub,

(c) means for operatively interconnecting said rear hub to said intermediate hub,

(d) a battery charger electrically connected to said dynamo, wherein the means for operatively interconnecting said rear hub to said intermediate hub is selected from the group consisting of a chain and a belt, and

(e) a coaster clutch incorporated into the

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intermediate hub.

11. The battery charging system of claim 10, further including both an overcharge protection circuit and a one-way gate switch to prevent power from returning from the batteries to the generator.

12. The charging system of claim 10 wherein the rear hub is disposed in a bearing mounted in the housing.

13. The charging system of claim 4 including means for supporting said front wheel off the ground in a fixed position.

14. The charging system of claim 4 further comprising a support having a pair of spaced alignment members one on each side of the front wheel.

15. The charging system of claim 14, including an L-shaped plate to retain the dynamo housing in a fixed position.